

CLAIMS:

- sub B1
- 109890364-073001
1. An organic electroluminescent device having at least one electroluminescent element comprising
a first and a second electrode and, disposed therebetween, an organic electroluminescent layer provided in accordance with a desired pattern and obtained from a fluid layer,
5 the device further having a relief pattern for containing the fluid layer from which the organic electroluminescent layer provided in accordance with the desired pattern is obtained, characterized in that
the electroluminescent layer is substantially uniform in thickness to the extent that the proportion of the organic electroluminescent layer having a thickness within 20 % of the
10 minimum thickness of the organic electroluminescent layer or the proportion of the organic electroluminescent layer having a thickness within 20 % of the maximum thickness of the organic electroluminescent layer, is at least 0.55.
2. An organic electroluminescent device as claimed in claim 1, characterized in
15 that the relief pattern or a part thereof has a transverse profile having an overhanging section rendering the relief pattern suitable for patterning the second electrode.
3. An organic electroluminescent device as claimed in claim 2, characterized in
that the relief pattern is a composite relief pattern of a first relief pattern for containing the
20 fluid layer and a second relief pattern having an overhanging section rendering the second relief pattern suitable for patterning the second electrode.
4. An organic electroluminescent device as claimed in any one of the claims 1-3,
characterized in that the organic electroluminescent device comprises a plurality of
25 independently addressable electroluminescent elements.
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5. A method of manufacturing an organic electroluminescent device having at least one electroluminescent element, said method comprising the steps of:
a) providing a first electrode,

- 5 b) providing a relief pattern for containing a fluid layer from which an organic electroluminescent layer provided in accordance with a desired pattern is obtainable,
c) depositing a fluid layer contained by the relief pattern,
d) obtaining, from the fluid layer, the organic electroluminescent layer provided in
10 accordance with the desired pattern, wherein the relief pattern and the fluid layer mutually interact such that the electroluminescent layer is substantially uniform in thickness to the extent that the proportion of the organic electroluminescent layer having a thickness within 20 % of the minimum thickness of the organic electroluminescent layer or the proportion of the organic electroluminescent layer having a thickness within 20 % of the maximum thickness of the organic electroluminescent layer, is at least 0.55, and
e) providing, on the organic electroluminescent layer, a second electrode.

- 15 6. A method as claimed in claim 5, characterized in that the relief pattern has a height selected such that, while reducing the volume of the fluid layer during the execution of step d), the fluid layer gels when the fluid surface of the fluid layer is approximately level with the top of the relief pattern.

- 20 7. A method as claimed in claim 5 or 6, characterized in that the fluid layer is selectively deposited by means of ink-jet printing.

8. A method as claimed in claim 5 or 6, characterized in that the fluid layer is selectively deposited by means of dispensing a continuous jet of the fluid.

- 25 9. A method as claimed in claim 5, characterized in that the fluid layer is deposited by means of spin-coating.

10. A method as claimed in claim 9, characterized in that the relief pattern has a height of 3 to 5 μm .

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